

WHAT IS CLAIMED IS:

1. A method for detecting target cells in a patient comprising:
  - a) marking target cells in the body with a signal emitting substance
  - 5 b) directing a detector through a naturally occurring body lumen in the patient to detect the signals; and
  - c) differentiating between signals associated with target cells and signals associated with non target cells.
- 10 2. A method for detecting target cells in a patient comprising:
  - a) administering to a patient a material comprising at least one signal emitting substance and at least one substance having an affinity for a target cell type.
  - 15 b) providing a detector capable of detecting signals emitted by the substance;
  - c) directing the detector through the patient's gastrointestinal tract;
  - d) differentiating between signals associated with the target cells and signals associated with non target cells.
- 20 3. A method comprising the steps of:
  - a) administering to a patient a material capable of targeting a target cell type;
  - b) administering to the patient a clearing agent for removing the material which is not bound to the target cell type;
  - 25 c) directing a detector through the patient's gastrointestinal tract to detect the target cell type.